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Exerciser

There are many types of exerciser available today and these can be divided  
5 into two categories. The first category is a large machine which is found in  
fitness rooms and health establishments. The second type is aimed at the  
home user and are generally portable from room to room.

Examples of the first type are bench presses, multi-gyms and leg exercisers  
10 that focus on pulling or lifting weights. These larger machines can be used for  
a complete workout, however one would generally need to utilise a number of  
them to exercise most of the body. This act of having to visit several machines  
in the course of fully exercising is a well practised one and is commonly  
referred to as doing a circuit. These machines are expensive and require  
15 substantial investment not just in the cost of maintaining and operating them,  
but also in the time spent in setting the machine up for each use, and finding a  
suitable permanent space large enough for them. Many multi-gyms require  
installation by bolting onto the floor before they can be safely used. Users of  
these machines may also need to have a supervisor present while they  
20 exercise on them in case they get into difficulties, as some exercise machines  
can cause damage to the user as well as the machines themselves if they are  
operated incorrectly. As a result most of the larger machines are impractical  
for the average person and are confined to health clubs or gymnasiums, and  
using these exercise machines has become an activity that is done only when  
25 scheduled and is usually confined to a separate room.

The second type of exercisers are generally portable from room to room in the  
home but are primarily designed to be targeted at a specific muscle group or  
body part, and so only have a very limited range of exercises. Examples of  
30 these are spring loaded hand exercisers, dumbbells and the number of

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specialist machines aimed at toning the stomach area. These smaller machines do not permit a wide range of exercises outside their specially designed ones and as a consequence are not able to exercise different body parts. Another drawback is that the smaller types of exerciser generally compromise robustness for affordability and portability. In other words in order to keep the cost, size and weight down there is frequently a feeling of cheapness to the exerciser which detracts from the experience of using it and does not engender more frequent use. A further drawback to these smaller exercisers is that due to their small size they frequently do not provide the user with the ability to exercise a full repetition where the user extends their limb or muscle group to its full length, or contracts from its full extension. While these smaller exercisers are more practical and affordable for the average person, they do not provide a thorough work out all over the body and are usually used in addition to other exercisers.

US 5046726 discloses a stomach muscle exerciser. The exerciser comprises a tube with a transversely extending support, the support being designed to rest on the thighs of the user when seated. A spring is provided with the tube. A plunger is inserted in the tube, the plunger including transverse handles designed to be gripped by the user. The plunger is movable into the tube against the force of the spring. An elastic band is connected between the tube and the plunger to prevent withdrawal of the plunger from the tube. The band is stretchable to allow removal of the plunger from the tube for replacement of the spring.

US 4863162 discloses a gymnastics apparatus comprising a pipe having a square cross-section and a cross-bar acting as a handle, and a connecting rod having a square cross-section to be received within the pipe, and also having a cross-bar acting as a handle. A spring is provided within the tube to

provide a resistive force against the movement of the connected bar into the tube.

Having an exerciser that can be used whenever there is a break or a pause  
5 in-between activities, such as during a lunch break or while waiting for an  
appointment, would be useful for those who have a busy lifestyle or do not  
want to spend the effort in visiting a health establishment. Long periods of  
inactivity such as during a long-haul flight or when caught in a traffic jam  
would also provide an ideal opportunity to use an exerciser. An additional  
10 benefit of using an exerciser in such a scenario is that the exercising helps to  
pass the time while keeping the user alert in an otherwise monotonous  
situation.

An exerciser in accordance with the present invention comprises an elongate  
15 body containing a resistive mechanism, a first handling member arranged  
generally along the major axis of the elongate body and slidably received  
within the body, the resistive mechanism providing a force against the  
insertion of the first handling member into the elongate body and a second  
handling member attached to the elongate body, and is characterised in that  
20 the handling members are freely rotatable with respect to each other.

The present invention seeks to provide an exerciser which is light in weight  
and easily stored about a person and is yet capable of a wide range of  
exercises. It is preferable that the exerciser is easily assembled from a small  
25 number of parts, and when assembled the exerciser exhibits a degree of  
robustness and the quality feel that is found in larger machines. In use, the  
two handling members may be held between two parts of the human body,  
and a compressive force applied between the handling members to exercise  
the body. The design allows the exerciser to be used by different parts of the  
30 body to give a full range of exercises.

- Such an exerciser combines portability, extreme light weight and compactness to be able to be carried about the person during the day. To be of maximum use it is versatile and is able to be used in a variety of different exercises. For the situations envisaged it is also able to be set up and stored away quickly, and is robust enough to be transported and handled roughly. For this purpose, it is preferred that the handling members are removably attached to the main elongate body.
- 10 By providing the two handling members freely rotatable with respect to each other generally about the axis of the exerciser, additional exercises, which are only achievable with the handles orientated in different directions, may be carried out.
- 15 It is a preferred feature of the invention that the first handling member includes an elongate or a rod-like element received in the elongate body of the exerciser. In this case, the rod-like element is preferably removably attached to the rest of the handling member for storage.
- 20 It is another preferred feature of the invention that a rod-like element, similar to that of the first handling member is provided to be fitted between the second handling member and the elongate body, and also aligned generally along the major axis of the elongate body. The provision of the elongate element between the body and handling member increases the overall length of the exerciser such that a full length repetition motion can be achieved by exercising with the second element. It is preferred that the second handling member can be attached to the body directly or with the elongate element. Accordingly additional exercises can be undertaken to take advantage of this. This is advantageous as some muscles can only be effectively exercised by half-repetitions closer to the body.
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high and 10 mm in length. Also shown are marking means 18 which are preferably employed on both 16 and the cylinder 2 so that the user can determine at what level the resistance is set. An electronic counter 19 is positioned on the surface of cylinder 2 and records the number of repetitions the user has achieved and also records other variables which can be set by the user. In this embodiment 19 can record the user's pulse rate through suitable electrode terminals, and also warn the user when a set level has been achieved. Clock and timer functions are also available.

- 10 In an alternative example, the exerciser is made primarily from a plastics material. This is less expensive and lighter than a metal version. In this case, snap fittings are used to connect the components rather than screw fittings.

The invention has been described in detail herein by way of example only, and many variations are possible without departing from the scope of the invention. Particularly, it should be appreciated that features described with reference to one embodiment may be used in others.